Prof. Chase gave the historical development of Bode's, Pierce's and Kirkwood's Astronomical Laws, and compared them with his own harmonic analogy of the solar system.

Pending nominations, Nos. 733, 736, 737, 738, 739, were read.

On motion of Dr. Carson, the Publication Committee was authorized to publish Dr. Gabb's map in duplicate, colored and uncolored.

And the meeting was adjourned.

Stated Meeting, October 17*th*, 1873.

Present, 12 members.

Dr. Carson, in the Chair.

Letters acknowledging the reception of publications were received from the Royal Society, dated London, August 26, 1873 (89); the Linnean Society, August 20, 1873 (89; wanting 88 and XIV, ii): and the Lyceum of Natural History in New York, dated October 6, 1873 (90).

A letter of envoy was received from the New York State Library, at Albany, dated October 2, 1873.

A letter requesting the completion of its series of the A. P. S. Trans. and Proc. was received from the Director of the U. S. Naval Observatory, dated Washington, October 3, 1873.

A letter was received from Mr. F. W. Cristern, foreign bookseller, 77 University Place, New York city, transmitting a request from M. Germer-Baillière, editor of the Cours Scientifiques, published in Paris. On motion, the request was granted.

Donations for the Library were received from the Ecole des Mines, Revue Politique, London Nature, Royal Society, Linnean Society, Mr. Edmund Quincy, Silliman's Journal, New York State Library, Regents of the University of New

York, Dudley University, Franklin Institute, College of Pharmacy, Journal of the Medical Sciences, and the Bureau of the Interior.

Prof. Trego described his recent observations on the iron ore deposits of Buckingham Mountain, east of Doylestown, in Bucks Co., Pa., when the lower Silurian limestones and Potsdam sandstone appear at the surface through the covering of the New Red, and bring up their characteristic brown hematites.

Mr. Lesley remarked that this exhibition of the ores was of special importance in refutation of the old opinion that, in the back valleys of Middle Pennsylvania, they originated from the erosion of the ferruginous layers of No. IV Middle Silurian, the nearest outcrop of which is forty miles to the north of Doylestown. The iron is undoubtedly a constituent of the Lower Silurian sand-lime deposits, and the ore-beds are co-extensive with the outcrops of the latter. Another important aspect of the exhibition at Doylestown is evident by comparison of it with the emergence of the Potsdam and Calciferous and Trenton formations, carrying the same ores at Chiquesalunga, on the Susquehanna river, ninety miles west of Doylestown, and on the southern edge of the New Red area. In coming times, the iron masters of Pennsylvania will moot the question of the possibility of reaching these ores under the covering of New Red, just as the English coal operators are at present engaged in discussing the attainability of the Coal Measures, under their New Red areas.

Prof. Houston spoke of the possible, or rather necessarily certain influence of the heat-radiation of the full moon, penetrating as it does the upper fourth or third of the earth's atmosphere, upon climate, and the duty of meteorologists to take account of it in their theory of storms. He inquired if any of the members present had noted a concurrence of low barometer and full moon, or any tendency in winds to move towards the district underlying a full moon. Putting together the two facts of a highly-heated moon surface with-

out atmosphere, and the negative appreciation of said heat by the thermo-electric pile at the bottom of the earth's atmosphere, it seems a necessary consequence that a complete absorption of the lunar-heat radiation must take place in the aqueous vapor of the upper strata of the earth's atmosphere, and this should produce visible effects in meteorology.

Prof. Frazer suggested that these effects should be *in maximo* in winter, or after long cold spells of weather.

Mr. Goodfellow gave it as his experience, in observing for the Coast Survey, that during the full of the moon he was always pretty sure of having a good clear night for observation, if only the common wind-clouds obscured the sky in the early evening; but not when rain-clouds were floating in the atmosphere.

Dr. Emerson said that many years ago he took the position, and had seen no good reason for abandoning it, that apart from gravitation the moon exerted no influence whatever upon the wet and dry changes of the atmosphere.

Pending nominations, Nos. 733, 736, 737, 738, 739, were read and spoken to, and then balloted for. There being no further business, the ballot-boxes were examined and the following gentlemen were declared duly elected members of Society:

Mr. A. Loudon Snowden, Chief Coiner of the U. S. Mint.
Mr. John S. Haines, of Germantown.
Mr. Matthew Huizinga Messchert, of Philadelphia.
Mr. J. Blodgett Britton, of Philadelphia.
Mr. John W. Harden, M. E., of Philadelphia.

Mr. Price submitted the following resolution, which was adopted:

Resolved, That the Treasurer be directed to pay to Henry M. Phillips, Treasurer of the Fairmount Commissioners, such a sum as, with $300 before so paid, shall be equal to half the income of the Michaux Legacy.

And the meeting was adjourned.